

Abstract

A system, methods and apparatus for rapidly and automatically orienting spherical objects, such as game balls, for subsequent downstream processing comprises a series of processing steps that can be performed at four separate, mechanically similar (or even identical) workstations. An imaging sub-system needs only one camera to image the spherical object and image the work process. The method of transposing the spherical object between work stations is simple, requiring an apparatus having only one degree of freedom to simultaneously convey and rotate spherical objects, and the system and method can automatically and rapidly determine the object's spatial orientation and change the orientation as required for downstream processing.